



2017

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Recommended Citation

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Reexamining the Use of Tentative Language in Emails: The Effects of Gender Salience and Gender Typicality

Rong Ma¹ and Anita Atwell Seate¹

Abstract

Drawing on self-categorization theory, the current study examines the effects of gender salience and interlocutor gender typicality on men and women's use of tentative language in emails. We conducted an experiment manipulating identity salience using gender-stereotypic conversation topics, and typicality using biographies of the fictitious female interlocutor. The results were consistent with self-categorization theory and previous research on gender-based language use: Men were more tentative when discussing a conversation topic in which their gender group was not considered experts. More importantly, interlocutor gender typicality influenced participants' tentative language, such that when the interlocutor was a typical woman, men and women became more tentative discussing a conversation topic in which they were not considered experts. This study has implications for future research on the contextual factors that may influence the use of language in both intragroup and intergroup communication.

Keywords

gender salience, gender prototype, interlocutor typicality, tentative language, self-categorization

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Reexamining the Use of Tentative Language in Emails: The Effects of Gender Salience and Gender Typicality

Men and women are thought to use language differently (see Palomares, 2012). For example, compared to men, women have been found to use more tentative language, such as hedges and tag questions (Carli, 1990), although this finding is not consistent across studies (e.g., Bradac, Mulac, & Thompson, 1995). Investigating the use of this language form is important for two reasons. First, the groups to which people and their communication partners belong impact, and are manifested in, the language that they use in communication. The literature on biases has shown that language signals such as abstraction (Maass, Salvi, Arcuri, & Semin, 1989) are related to the maintenance of group stereotypes. Tentative language, which indicates uncertainty and a lack of assertiveness, is one such language form. Second, tentative language has important social meaning. One important way to examine the assumptions, expectations, and stereotypes of people underlying an interaction is to examine the language that communicators use (Giles, 2016).

Traditionally, tentativeness is related to gender stereotypes, and has been regarded as the women's language, which signals women's subordinate status and powerlessness (Lakoff, 1973). Yet, several contextual moderators of tentative language have been found, suggesting that there are more dynamic elements to its use (Leaper & Robnett, 2011). In other words, to explain the inconsistencies noted above, scholars have been examining the communication context, such as the conversation partner or conversation topic, which has been found to have an influential role on language use of both men and women (Leaper & Ayres, 2007). For example, conversation topics have been shown to activate a person's gender identity (i.e., lead people to perceive themselves in terms of their gender rather than unique individuals) in inter-gender contexts,

resulting in differing language patterns based on the stereotypical expertise of the gender group (Palomares, 2009).

Other than conversation topics and the gender of both communicators, the typicality (i.e., perceived as representative of his/her social group) of the conversation partner can also activate identity-consistent communicative behavior (see Harwood & Joyce, 2012). Indeed, some researchers regard typicality as a key dimension of group salience (e.g., Hajek, Villagran, & Wittenberg-Lyles, 2007). However, researchers have not examined how these two factors—conversation topics and interlocutor typicality—activate gender-consistent behavior both independently and in tandem. For example, little is known about the case when the outgroup member (i.e., an individual outside the group to which the communicator belongs) is perceived as typical of their gender group while the conversation topic does not stress gender, or when gender is made salient by the conversation topic, but the outgroup interlocutor is atypical of their gender group. These two contexts may be particularly meaningful in a text-based computer-mediated context, because other socio-contextual cues can be limited and people typically rely on language to infer partner's identity and express their own identity (Lee, 2007). Although researchers have not examined the independent and joint effects of interlocutor typicality and conversation topics on gender-consistent behavior, such research is extremely important, because the characteristics of the interlocutor (e.g., typicality) are an indispensable element of the communication context. Therefore, to address the nuances of identity-consistent behavior, we must extend our attention from narrowly focused contextual factors to the interacting partners, in this case, their gender typicality.

To address this lacuna in the literature, we draw on self-categorization theory (Turner, 1985) to extend previous research by examining how conversation topics and interlocutor

typicality work independently and together to further understand language use in online contexts. The current study has three objectives. First, we seek to replicate previous research findings on the effect of gender salience triggered by conversation topics on tentative language use. Second, we examine gender typicality, as a characteristic of the conversation partner, in terms of its effect on people's use of tentative language. Third, and most importantly, we seek to investigate the interaction effect of two factors—conversation topics and interlocutor gender typicality—on language tentativeness in both inter-gender and intra-gender settings. We do this by having people communicate, via email, with either a typical or atypical female interlocutor while gender is or is not salient. Our study contributes to the literature by examining closely the different conditions under which gender identity can be activated, and how and why the resulting effects on tentative language vary. By doing so, we are able to provide insights for intergroup communication research regarding how different identity-related contextual factors are reflected in, and communicated through the use of language.

Self-Categorization and Gender Salience

Self-categorization theory suggests that people categorize themselves and others into different social groups (e.g., race, gender), which provide communicators with group norms on how to act in a conversation (Turner, 1985). In other words, group identities guide people's communicative behaviors and judgments of others (see Harwood, Giles, & Palomares, 2005). In different contexts, specific social identities can become salient (i.e., pronounced, playing a critical role) if they are relevant in that situation (i.e., accessible) and can explain communicators' behavior (i.e., fit; Abrams & Hogg, 2010). Moreover, when a certain group identity is salient, people assimilate to the group prototypes, that is, a set of attributes that are thought to define the group (e.g., women being emotional; Palomares, 2008), and behave according to said prototypes. Yet, the

prototypes of a group are not fixed or stable. A social group can have prototypes on various dimensions, and what prototypes are activated depends on the context. The rest of this section analyzes gender as one group identity, and its two important prototype dimensions.

Gender identity has been found to be an important and frequently activated social identity that can influence communicative behaviors. There are two orthogonal prototype dimensions associated with gender identity: assertiveness and affiliation. Assertiveness can be demonstrated in language features such as tentativeness or criticisms, whereas affiliation can be represented by emotional or supportive language (Palomares, 2012).

When gender identity is salient, certain contextual cues will emphasize a particular prototype dimension, and the communicative behavior (including language use), as well as expectation of interaction partner's behavior, will vary along the prototype dimension that is stressed by the context (Palomares, 2009, 2012). For example, Palomares (2008) used paragraphs that stressed supportiveness to manipulate gender salience along the affiliation dimension, and found that women used more references to emotion than men. Yet, women and men did not differ on tentativeness, because the prototype dimension of assertiveness was not relevant in the context. Also, in a critical test of self-categorization theory, expectation states theory, and role congruity theory, researchers found that the first two theories better explained the effect of gender-based tentative language on social influence than role congruity theory, such that a tentative female speaker had more influence on men when she was categorized as a woman rather than a student (Reid, Palomares, Anderson, & Bondad-Brown, 2009). This was because when gender was salient, men regarded the speaker as a member of the other gender, and expected her to behave in consistency with the prototype of women, that is, being tentative.

Conversation Topics and Tentative Language

The topic of conversation is one factor that can activate gender identity along the prototype dimension of assertiveness (Palomares, 2009). Although gender differences in conversation topics have declined in the last few decades, they are still notable across contexts (Bischooping, 1993). In fact, knowledge and expertise in a gender-typical conversation topic can evoke gender inferences that are consistent with gender stereotypes (Lee, 2007). As men and women are stereotypically considered experts in certain topics (e.g., sports for men and fashion for women), talking about these gender-specific topics can make gender salient, thus influencing people's use of language (Palomares, 2009). Furthermore, as the expertise about a conversation topic is closely related to skillfulness, knowledge, and thus self-assuredness, the gender prototype of assertiveness is particularly relevant here. Because tentative language manifests a lack of assertiveness, we would expect both men and women to use more tentative language when the conversation topic is not stereotypic of their gender (e.g., cars for women and makeup for men; Palomares, 2009). This prediction is consistent with the self-categorization perspective, which posits that when group identity is salient, people assimilate to the group prototype that is relevant in the context.

Gender Salience and Inter-Gender Setting

Gender-based language use is more pronounced in inter-gender than intra-gender context (Palomares, 2008, 2009), because gender identity is more salient in the inter-gender setting, as suggested by self-categorization theory (Turner, 1985). When a certain social group maximizes intergroup differences and intragroup similarities, this group identity becomes salient. In Hogg and Turner's (1987) study on self-stereotyping, gender salience was manipulated using inter-sex interactions (two men debating two women) and same-sex dyadic interactions (two men or two women debating each other). Men and women were found to manifest more gender-related self-

stereotyping behavior in the former gender-salient condition than in the latter, non-salient condition. This is because in intergroup contexts, the difference between group prototypes is more pronounced than in intragroup settings, and the differences of communication styles should be more pronounced in the former case (Hogg & Turner, 1987). In gender-based communication in particular, when talking to an interlocutor of the other gender, people should have a stronger tendency to assimilate to the ingroup prototypes, featuring more tentativeness when their gender is not regarded as having expertise on the conversation topic. For example, when men are talking to a woman about a feminine topic, they should be more tentative than when talking to a man, or when the conversation topic is masculine (Palomares, 2009).

To summarize the discussion above, the effects of conversation topics on tentative language that we discussed in the previous section should be more pronounced when men (i.e., inter-gender), rather than women (i.e., intra-gender), are talking to the female interlocutor, because gender is more salient in the former case. This prediction is consistent with the self-categorization theory, and has been supported in previous research (e.g., Palomares, 2009). Therefore, we propose the following hypotheses about the interaction between participant's gender and conversation topics as a replication of previous research:

Hypothesis 1: Men will be more tentative when the conversation topic is feminine than when the conversation topic is masculine or gender-neutral.

Hypothesis 2: Men will be more tentative than women when the conversation topic is feminine.

As mentioned previously, self-categorization theory and related research would suggest that conversation topics may not have an effect on tentative language in intra-gender setting, because gender is not likely to be salient (Palomares, 2009). Realizing the merits of previous

findings, we seek to extend the theory by exploring conditions under which people may vary in tentativeness in intra-gender communication, when gender identity-consistent behavior may be activated due to other reasons, such as interlocutor's gender typicality. Also, we argue that interlocutor gender typicality is an important factor that influences language use in inter-gender contexts, and should be differentiated from constructs such as gender salience. The following section thus discusses the effects of interlocutor gender typicality on gender-based language use in both intra-gender and inter-gender settings.

Gender Salience and Gender Typicality

Group typicality of the communicators plays an important role in influencing intergroup behavior (Hewstone & Lord, 1998). An individual is typical of the group when his or her behavior is consistent with the representative attributes of the group. An interlocutor who is typical of his or her social group activates group prototypes, and alters the way people communicate with the interlocutor.

Although researchers have emphasized the importance of group salience and typicality (e.g., Brown & Hewstone, 2005), the differentiation of and the relationship between these two constructs have not been explicitly addressed in the literature. Some researchers consider typicality as a key dimension of group salience, and have manipulated salience through the typicality of the outgroup member (e.g., Brown, Vivian, & Hewstone, 1999; Hajek et al., 2007). This approach greatly contributes to the literature by revealing the close relationship between group salience and interlocutor typicality. Alternatively, Ensari and Miller (2002) manipulated salience and typicality separately in a study of intergroup contact, and found that the effect of self-disclosure was moderated by either group salience or outgroup member typicality. Yet, the study did not find an interaction between the two constructs. In the area of gender-based

language, however, researchers have not addressed the effect of gender typicality as a characteristic of the interlocutor. Yet, interlocutor gender typicality should be a key factor in gender-based communication; we can understand and predict gender-based language more thoroughly after examining how interlocutor gender typicality influences people's language use independently as well as jointly with other communicative factors, such as conversation topics.

In inter-gender settings, interlocutor gender typicality should play a critical role in tentative language use in particular, interacting with conversation topics. Whereas gender-related conversation topics increase gender salience by emphasizing the gender prototypes associated with topical expertise, gender typicality of the interlocutor could moderate the effect of the activated gender salience, by (dis)confirming the assumption that the interlocutor is (or is not) an expert on the conversation topic. For example, when men are discussing a feminine conversation topic with a typical woman, the feminine topic makes gender salient. Moreover, because the typical female interlocutor is considered to be an expert in the feminine conversation topic, it further leads men to assimilate to the ingroup prototypes of being non-experts on the feminine topic, and become tentative. On the other hand, when men are discussing the feminine conversation topic with an atypical woman, who does not possess the attributes associated with the group prototype, men will not consider the female interlocutor as an expert in the topic, and will be less tentative than in the former situation.

In intragroup contexts, on the other hand, a typical ingroup interlocutor may influence communicator's tentative language use as well, by emphasizing the prototypes of the group that are relevant in the context. Previous research has not examined the effect of interlocutor typicality on the use of tentative language when he or she is an ingroup member instead of an outgroup member. However, it is important to examine intragroup contexts if we want to fully

understand how and why interlocutor typicality influences language use, more broadly. In response to this issue, we propose that in an intra-gender setting, the mere presence of a typical ingroup interlocutor may also activate gender prototypes, and make people more likely to assimilate to their ingroup prototypes, thus being more tentative in the conversation topics of which they do not perceive themselves as experts. In other words, the typical ingroup member primes people of the ingroup prototypes. Summarizing the discussion above about inter- and intra-gender settings, we expect a three-way interaction between participants' gender, interlocutor typicality, and conversation topics in predicting use of tentative language. Note that this three-way interaction is the unique contribution that we seek to make to the literature on gender-based language use. Specifically, we expect the following:

Hypothesis 3: When talking to a typical female interlocutor, men will be more tentative discussing a feminine conversation topic than a masculine or neutral conversation topic

- (a). When talking to a typical female interlocutor, women will be more tentative discussing a masculine conversation topic than a feminine or neutral conversation topic
- (b).

Hypothesis 4: Men will be more tentative discussing a feminine conversation topic with a typical female interlocutor than with an atypical female interlocutor.

Also, we can compare the differences between men and women in their use of tentative language. The following hypothesis is proposed based on self-categorization theory and the discussion above:

Hypothesis 5: Men will be more tentative than women when the conversation topic is feminine and they are talking to a typical female interlocutor (a). Women will be more tentative than men when the conversation topic is masculine and they are talking to a

typical female interlocutor (b).

As argued above, conversation topics influence men and women's use of tentative language by increasing gender salience. In other words, gender salience is the explanatory mechanism for the expected effects of conversation topics on tentative language use. Because the role of gender salience is not explicit in the hypotheses above, we ask the following research question about the role of gender salience as a mediator:

Research Question: Does gender salience mediate the effects of gender-stereotypic conversation topics on the use of tentative language?

Method

Pilot Study

We conducted a pilot study to ensure that the conversation topics are regarded as stereotypically feminine, masculine, or gender-neutral, and that the biographies of the interlocutor depict an either typical or atypical woman. We recruited students who take communication courses at an east coast university through an online research website. Participants earned extra credit for participation in the pilot study. The participants were outside of the experimental sample.

Participants. One hundred and nineteen participants from the same population as the main study took part in the pilot study ($N = 119$; 47.9% female). Participants identified themselves as White (70.6%), Asian/ Pacific Islanders (11.8%), Hispanic/ Latino/a (5.9%), African Americans (5.0%), Native Americans (1.7%), and other (5.0%). The average age was approximately 19 years old ($M = 18.82$, $SD = 1.82$).

Masculinity and Femininity of Topics. Participants were asked about their perception regarding the femininity and masculinity of five topics, which were used in previous research on gender-based language use (Palomares, 2009). The topics are (a) Cars/Automotive, (b) Places-to-eat, (c)

Shopping, (d) Sports, and (e) Fashion/Clothing. For each topic, participants were asked to respond to the following question: “How feminine is this topic? (1 = not feminine, 7 = feminine).”

The results of within-subjects ANOVA showed that the five topics are significantly different in terms of femininity, $F(1, 118) = 516.39, p < .001$, partial $\eta^2 = .81$. We compared the 95% confidence interval of the estimated marginal means to determine whether the means differed significantly. The topics of Cars/Automotive ($M = 2.63, SE = 0.09$, 95% CI [2.46, 2.80]) and Sports ($M = 3.61, SE = 0.13$, 95% CI [3.35, 3.87]) scored lowest in femininity yet were significantly different with regards to femininity, whereas the topics of Shopping ($M = 6.24, SE = 0.09$, 95% CI [6.07, 6.41]) and Fashion/Clothing ($M = 6.31, SE = 0.09$, 95% CI [6.13, 6.49]) did not differ in femininity. The topic of Places-to-eat ($M = 4.40, SE = 0.12$, 95% CI [4.17, 4.64]) differed from all other topics. Therefore, the manipulation was successful except for the topic of sports. Three topics (Shopping, Cars/Automotive, and Places-to-eat) were selected for the main study, yielding one feminine, one masculine, and one gender-neutral topic.

Gender Typicality. Participants read two biographies of a fictitious interlocutor named Christina (see Appendix). Participants were asked to read the two biographies and responded to the question “How typical is Christina as a woman?” on a scale from 1 to 7, where higher scores represented higher gender typicality as a woman. The results of the paired-samples t-test showed that the biography of a typical woman ($M = 6.29, SD = 1.23$) and the biography of an atypical woman ($M = 3.39, SD = 1.31$) were significantly different in terms of gender typicality, $t(117) = 15.89, p < .001$, Cohen’s $d = 1.48$. It should be noted that we did not include typical and atypical male interlocutors in our study. We believe this choice can be justified, because according the self-categorization theory (Turner, 1985), people should assimilate to ingroup prototypes if a

male interlocutor were included. In other words, the results should be symmetric with what we found for the female interlocutor. Yet, as we will highlight in the discussion, excluding the male interlocutor is a limitation of our study.

Main Study

The main study has two parts. In part one, participants filled out an online survey. At least one week later, they were scheduled to come into the research center and complete the second part of the study. Only participants that completed both parts of the study were included in the analyses.

Participants. Among the 318 participants who completed the main study, five were deleted because of operation errors (e.g., failure to send the email; $N = 313$; 59.1% female). Participants identified themselves as Caucasians (51.8%), Asian/ Pacific Islanders (17.9%), African Americans (15.6%), Hispanic/ Latino/a (7.7%), and other (7.0%). The average age was 19 years old ($M = 19.14$, $SD = 1.42$).

Online Portion. After participants signed up for the study, they followed a link to fill out an online questionnaire. Specifically, they were asked to provide their demographics such as biological sex, gender, and race. None of the participants indicated a mismatch between biological sex and gender. Moreover, they were asked to write a paragraph to describe themselves and how they wished to spend their perfect day. The paragraphs that they wrote were not used in the analysis; instead, this question aimed at increasing the credibility of the biographies of the interlocutor that participants were going to read in the second portion of the study. Lastly, participants provided their email addresses for further contact and the ID number that was assigned to them by the online system when they signed up for the study.

Lab Portion. After the online component, participants were contacted through email and were scheduled to participate in the second part of the study. Among the 525 participants who took

part in the first portion, 69.6% responded and set up a time with the researchers, and 60.3% came to the research center to complete the study.

After participants came to the research center at the scheduled time, they were randomly assigned to one condition in the 2 (interlocutor typicality: typical and atypical woman) \times 3 (conversation topic: masculine, feminine, and gender-neutral) design. They were seated in separate carrels facing a computer with the instructions already displayed on the screen. Participants were told that the study examined the online communicative behavior of college students, and that they were going to write an email to another participant who had been randomly assigned to them on a certain conversation topic.

Next, participants were instructed to read a short paragraph that depicted a perfect day, which claimed to be written by their conversation partner in the first part of the study (see Appendix). Because self-categorization theory suggests that the hypotheses should be symmetric when the condition is reversed (e.g., when facing a male interlocutor), all the participants interacted with a fictitious female interlocutor. Then participants read one of the three conversation topics: (1) Cars/Automotive Question: What's the best way to change a flat tire and why do you think that?, (2) Shopping Question: Where's the best place to shop for makeup/cosmetics and why do you think that?, and (3) Places-to-Eat Question: What's the best restaurant to eat excellent food and why do you think that? After that, participants were instructed to write an email to their partner to answer the question using an email account that had already been logged in. The ID number was required in the email so responses in the online portion and the lab portion could be matched. Finally, participants were debriefed and thanked before they left the research center.

Gender Salience. Ten 7-point Likert-scale items were adapted from previous research

(Palomares, 2009). Examples included “While typing my email, I was thinking about being a male or female” and “While typing my email, I thought my gender was important.” Because the measure reached high reliability (Cronbach’s $\alpha = .93$, $M = 3.75$, $SD = 1.68$), we averaged the scores for each participant to yield a composite measure of gender salience.¹

Quantitative Content Analysis

We coded the email content of the participants in terms of tentativeness of the language. The coding scheme was developed based on previous research by Palomares (2009). Two undergraduate coders, who were blind to the purpose of the study, went through 10 training sessions of approximately 15 hours of training, and practiced coding emails from outside the sample. After training, the coders were asked to count four tentative language features in the emails: hedges (e.g., sort of, maybe, probably), disclaimers (e.g., as for me, in my opinion, personally), tag questions (e.g., . . . don’t you think?, . . . I guess?), and hesitations (e.g., . . . , hmmm, uh).² Only words and phrases that indicated uncertainty were coded; discourse markers and words that merely showed politeness were not included even if they could indicate tentativeness in a different context. When words and phrases indicated both politeness and uncertainty, they were not coded as tentative language features.

The 313 emails were divided and distributed to the two coders, with 60 emails being double-coded. SPSS Krippendorff’s macro was used to compute the reliability of the coding, because Krippendorff’s α is considered the standard reliability measure of coding (Hayes & Krippendorff, 2007). The results of the 60 double-coded emails showed acceptable intercoder reliability: Krippendorff’s α s are .78, .71, 1.00, and 1.00 for hedges, disclaimers, tag questions, and hesitations, respectively. For the 60 double-coded emails, when the coders disagreed, their scores were averaged. Next, the counts of the four language features were summed up for each

email and divided by the word count of the email, yielding an index of the proportion of tentativeness. Different from previous studies, which used the count of tentative features as the dependent variable (e.g., Palomares, 2008; 2009), the present study uses the proportion of tentativeness in subsequent data analyses because it controls for the word count and thus is an indicator of the intensity of tentativeness in the emails.

Results

Hypothesis Testing

We conducted a 2 (participant gender: men and women) $\times 2$ (interlocutor gender typicality: typical and atypical) $\times 3$ (conversation topic: feminine, masculine, and gender-neutral) between-subjects ANOVA to test the effect of the factors on proportion of tentativeness. When ANOVA results indicated a significant interaction effect, we ran pairwise comparisons in SPSS to test the simple effects predicted in each hypothesis. The estimated mean differences, standard errors of mean differences, and significance levels are used for interpretation below. On average, participants' emails were 129 words in length ($M = 129.00$, $SD = 64.39$), and each email included approximately one tentative language feature ($M = 1.04$, $SD = 1.28$). The descriptives of the dependent variable (i.e. proportion of tentativeness) in each condition are reported in Table 1.

Hypotheses 1 and 2. The first two hypotheses predicted a two-way interaction between participants' gender and conversation topics as a replication of previous findings (Palomares, 2009). The two-way interaction between participants' gender and conversation topics was statistically significant, $F(2, 312) = 9.55$, $p < .001$, partial $\eta^2 = .06$.

The first hypothesis predicted that men will be more tentative when the conversation topic is feminine than when the conversation topic is masculine or gender-neutral. The pairwise

comparisons showed that men were more tentative when the conversation topic was feminine than when the conversation topic was masculine ($M = .012$, $SE = .003$, $p < .001$), or neutral ($M = .010$, $SE = .003$, $p < .001$). Therefore, Hypothesis 1 was supported.

Hypothesis 2 predicted that men will be more tentative than women when the conversation topic is feminine. The results show that when the conversation topic was feminine, men were more tentative than women ($M = .009$, $SE = .002$, $p < .001$). Therefore, Hypothesis 2 was supported.

Hypotheses 3 to 5. Hypothesis 3 through Hypothesis 5 predicted a three-way interaction between participants' gender, interlocutor typicality, and conversation topics. The three-way interaction was statistically significant, $F(2, 312) = 4.40$, $p = .013$, partial $\eta^2 = .03$.

Hypothesis 3 predicted that when talking to a typical female interlocutor, men will be more tentative when the conversation topic is feminine than when it is masculine or neutral, and that women will be more tentative when the conversation topic is masculine than when it is feminine or neutral. Figure 1 demonstrates the results for the three-way interaction. The results for the pairwise comparisons showed that when men were talking to a typical female interlocutor, they were more tentative discussing a feminine topic than a masculine ($M = .018$, $SE = .004$, $p < .001$) or neutral topic ($M = .016$, $SE = .004$, $p < .001$) when talking to a typical female interlocutor. Hence, Hypothesis 3(a) was supported.

Moreover, women were more tentative discussing a masculine topic than a neutral topic ($M = .010$, $SE = .003$, $p = .001$) or a feminine topic ($M = .006$, $SE = .003$, $p = .049$) when communicating with a typical woman. Therefore, Hypothesis 3(b) was supported.

Hypothesis 4 predicted that when the conversation topic is feminine, men will be more tentative when the interlocutor is a typical woman compared to an atypical woman. Again, the

pairwise comparisons supported our hypothesis. Men were more tentative when discussing a feminine topic with a typical female interlocutor than with an atypical female interlocutor ($M = .011$, $SE = .004$, $p = .004$). It is important to note that this result refutes the alternative explanation that gender differences in tentative language are influenced by the gender stereotypicality of the conversation topic rather than gender salience, because men used tentative language differently even under the same conversation topic.

Hypothesis 5 predicted that when the interlocutor is a typical woman and the conversation topic is feminine, men will be more tentative than women, and that when the interlocutor is a typical woman and the conversation topic is masculine, women will be more tentative than men. The results showed that when talking to a typical woman, men were more tentative than women ($M = .016$, $SE = .003$, $p < .001$) discussing a feminine topic. Therefore, Hypothesis 5(a) was supported. When talking to a typical woman about a masculine conversation topic, women were more tentative than men ($M = .007$, $SE = .003$, $p = .026$). Hence, Hypothesis 5(b) was supported.

Research Question

The results above supported our hypotheses, such that gender typicality of the interlocutor, conversation topics, and participant gender interacted to predict participants' use of tentative language. However, because the paragraph of typical woman described her as a shopping expert, the results might be interpreted in an alternative way, such that it was not gender salience, but perceived expertise of the interlocutor, that drove the effects on tentative language. We have two reasons to refute this alternative hypothesis. First, the result of Hypothesis 3(b) showed that women, when talking to the typical female, were more tentative discussing a masculine topic (i.e., cars) than a feminine topic (i.e., shopping). If the alternative hypothesis were true, we

would observe the opposite. Second, if perceived expertise were the driving factor, we would expect women to be more tentative discussing the feminine topic when the interlocutor was a typical than an atypical woman. However, the result of pairwise comparison showed no difference ($M = -.004$, $SE = .003$, $p = .104$).

Gender Salience as the Mediator. A major argument of our study was that feminine and masculine conversation topics affected use of tentative language because they activated gender salience, which has been supported by previous research (Palomares, 2009). However, it is still possible that it was *only* the gender-stereotypicality of the topics, rather than gender salience, that influenced tentative language use. To refute this alternative hypothesis, and to answer our research question on gender salience as the explanatory mechanism for the expected effects in the hypotheses tested above, we conducted additional analyses by testing a structural equation model in Mplus 7 (Muthén & Muthén, 1998-2012) using the standard deviations and the correlation matrix of the variables. Based on the previous analyses and results, conversation topics should influence tentative language use through gender salience *only* when the female interlocutor is a typical woman. Therefore, we only included the participants who had a typical female interlocutor in the following analyses ($n = 156$).

First, we coded the three conversation topics into two orthogonal polynomials to represent the linear effect (coded as: gender-neutral topic = -1, masculine topic = 0 and feminine topic = 1) and the quadratic effect (coded as: gender-neutral topic = -1, masculine topic = 2, feminine topic = -1). Next, we created a new variable to signify the gender-inconsistency of the topic (i.e., men with feminine topic or women with masculine topic). We also created the mediator×moderator interaction term by multiplying the mean-corrected mediator and the mean-corrected moderator, to reduce the potential multicollinearity between the predictors. Last, we

specified the model, in which the two new topic variables predicted gender salience (the mediator), and the two topic variables, gender salience, gender-inconsistency of topic (the moderator), and the interaction term predicted tentative language use. The conceptual model can be seen in Figure 2.

Overall, the model had good fit, $\chi^2 = 2.19$, $df = 2$, $p = .335$; RMSEA = .02, CFI = 1.00, SRMR = .02. The statistical model and the path coefficients can be seen in Figure 3. The model was significant in predicting gender salience, estimated $R^2 = .43$, $SE = .06$, $p < .001$, and the proportion of tentativeness, estimated $R^2 = .22$, $SE = .06$, $p < .001$. Specifically, both topics linear ($b = 1.31$, $SE = 0.13$, $p < .001$) and topics quadratic ($b = -0.20$, $SE = 0.07$, $p = .006$) were significant in predicting the mediator, gender salience. Topics linear ($b = 0.003$, $SE = 0.001$, $p = .027$), gender-inconsistency of the topic ($b = 0.010$, $SE = 0.002$, $p < .001$), and the interaction between gender salience and gender-inconsistency of the topic ($b = 0.003$, $SE = 0.001$, $p = .040$) significantly predicted the dependent variable, proportion of tentativeness. In other words, conversation topics had both a linear and a quadratic effect on gender salience. Conversation topics also had a linear main effect on tentative language use, such that the feminine topic led to the highest tentativeness, followed by the masculine topic and the gender-neutral topic. Gender-inconsistency of the topic had a main effect on tentative language use, such that people were more tentative when discussing a topic that was inconsistent with their gender. Most importantly, when the conversation topic was inconsistent with participants' gender, gender salience increased tentative language use. In summary, our results supported gender salience as mediating the effect of conversation topics on use of tentative language, which answers our research question, and refutes the alternative hypothesis.

Discussion

This study extends previous research on gender-based language by examining the effects of conversation topics and interlocutor gender typicality on men and women's use of tentative language in emails when they were interacting with a female interlocutor. Our findings can be summarized in three parts. First, as the support for self-categorization theory and a replication of previous research, we found that participants' gender interacted with gender-stereotypic conversation topics, such that in inter-gender settings, people used tentative language in accordance with their gender prototypes' topical expertise. Moreover, as the first study to examine how typicality influences gender-based language, we observed a three-way interaction between participants' gender, conversation topics, and interlocutor gender typicality, such that the interaction effect of the former two factors was pronounced only when the interlocutor was a typical rather than an atypical woman. Furthermore, our study predicted, and found effects on tentative language under conditions that have not been addressed in previous research, showing the critical role of interlocutor gender typicality in *intra*-gender setting. In the following paragraphs, we will discuss the contributions of our study in terms of these three aspects in detail.

To begin with, our study provides support for the use of self-categorization theory in gender-based communication, and replicates the findings of previous research (e.g., Palomares, 2009). Rooted in the social identity perspective, self-categorization theory (Turner, 1985) posits that when a certain group identity is made salient by the context, people communicate as group members (rather than distinct individuals) by assimilating to the ingroup prototypes that are relevant to the context.

In the current study, gender-stereotypic conversation topics, as a contextual factor that is related to knowledge and expertise, triggered gender salience along the dimension of language

assertiveness. Men and women became tentative in their language when they perceived their gender group as lacking expertise in the conversation topic compared to the gender group of the interlocutor. In support of our hypotheses, when talking to a female interlocutor, men were more tentative discussing a feminine topic than masculine or gender-neutral topic. Also, men became more tentative than women when discussing a feminine topic. Consistent with what we proposed, the effect of conversation topics was found in inter-gender (i.e., men talking to a female interlocutor), but not intra-gender (i.e., women talking to a female interlocutor) settings, because gender identity was more salient in the former case. Therefore, our study extends the utility of self-categorization theory by demonstrating that the effect of conversation topics on language use in inter-gender settings is multifaceted: When conversation topics trigger gender salience, people's language differs on the dimension of assertiveness, which is relevant to topical expertise; moreover, people use tentative language differently based on whether the conversation topic is stereotypically linked to their gender, such that when they are not stereotypically considered as experts in the conversation topic, people assimilate to the ingroup prototypes of non-experts and feature more tentativeness in their language.

Second, this study is the first in the literature of gender-based communication to demonstrate the important role of interlocutor gender typicality, suggesting that a gender-typical interlocutor is a needed condition for gender-stereotypic conversation topics and participant gender to have joint effects on people's use of tentative language in inter-gender settings. Self-categorization perspective implicates that when the interlocutor is representative of the outgroup, people adjust their communicative behaviors based on their own and the interlocutor's group identities. Similarly, Brown and Hewstone (2005) suggested that the typicality of the outgroup interlocutor plays a crucial role in intergroup behavior. In the current study, we manipulated

gender typicality of the female interlocutor using fictitious biographies to examine the three-way interaction between interlocutor typicality, conversation topics, and participant gender. The results showed that gender typicality of the female interlocutor was important for men to assimilate to group prototypes in their use of tentative language. Specifically, when talking to a typical woman only, men were more tentative about a feminine conversation topic than masculine or gender-neutral conversation topics. Also, men were more tentative than women when discussing a feminine topic with a typical female interlocutor. For the atypical female interlocutor, however, none of the effects emerged. This suggests that although previous research has provided valuable insights on contextual factors such as conversation topics, they may not be sufficient conditions in influencing group-based communication.

Researchers need to broaden their attention to group-based characteristics of the interlocutor as well. Although not explicitly addressed before, our hypotheses and findings are consistent with self-categorization theory—an atypical woman is not regarded representative of her gender group, and thus is unrelated to the gender prototypes, so the intergroup effects on tentative language use should not emerge. Interestingly, we also found that gender typicality of the interlocutor did not activate gender salience, nor did it have a main effect on tentative language use. Additionally, when the conversation topic was not related to gender, whether or not the interlocutor was a typical woman did not make any difference to men's tentative language. This may suggest that interlocutor typicality alone cannot trigger gender identity specifically along the dimension of assertiveness, and therefore does not solely affect people's use of tentative language. These speculations await further research.

Third, our study extends the literature and applies self-categorization theory to *intragroup* settings by examining the effects of interlocutor typicality on language use in intra-gender

contexts. This is extremely important for us to understand gender-based language more thoroughly, given that most research done in this area using self-categorization perspective only has predicted and found effects in intergroup contexts. As predicted, we found that women were more tentative discussing a masculine conversation topic than a neutral or feminine topic, only when the interlocutor was a typical woman. This finding demonstrates that gender-based language use not only can be pronounced in inter-gender setting; in intra-gender interactions, the presence of a prototypical ingroup interlocutor emphasizes, and reminds people of, the ingroup prototypes, making people more likely to behave similarly with the typical member, and use language consistently with the gender prototypes. In a broader sense, the result suggests that people may converge their communication styles to group prototypes when interacting with a typical ingroup member. In other words, a typical ingroup interlocutor primes people of the particular group identity, and therefore ingroup prototype-consistent behaviors, whereas an atypical ingroup member does not have such an effect.

Apart from having important theoretical implications for intergroup scholars, our findings have social significance for the practical world in terms of gender-based stereotypes, expectations, and language use. Contrary to the traditional opinions that women are more tentative (Lakoff, 1973), our study shows that use of tentative language is based on various contextual factors. In both inter-gender and intra-gender communication, people make assumptions about the interlocutor, and change their behavior accordingly. These assumptions may not require conscious thoughts, but are reflected in, and communicated through language. Two questions are thus posed: First, how can we trace back the assumptions that underlie use of language? For example, a man who is more tentative discussing makeup with a woman may have stronger gendered stereotypes of topical expertise. Second, what are the effects of such

difference in language use? For instance, does the tentativeness of the man above influence how the female interlocutor perceives him, herself, and their genders? We believe these two aspects are worthy of further examination of both researchers and practitioners.

Our findings extend self-categorization theory and contribute to the literature on gender communication as well as to the practical world; yet, our study has its limitations. First, we only included a fictitious female interlocutor, yielding inter-gender contexts only for men and intra-gender contexts only for women. Therefore, it was unable to compare the differences of men and women in tentative language use within the exact same contexts. However, self-categorization theory suggests that people should be depersonalized, and assimilate to ingroup prototypes in the same manner if a male interlocutor were included. Previous research has also provided rich evidence on the symmetric pattern of language use for men and women (e.g., Palomares, 2008, 2009). When discussing a topic that is not stereotypically associated with their gender, both men and women featured more tentativeness in their language compared to members of the other gender. Hence, people's communication pattern is assumed to be parallel with current findings if a male interlocutor is included in the design. Second, we used a college student sample in the study. Although the choice of sample is consistent with previous research on gender-based language (e.g., Palomares, 2008, 2009; Reid, Keerie, & Palomares, 2003), using college student sample limits the external validity of our study. Third, our study only examined tentative language use in one computer-mediated context, emails. Yet, our study complements other work in the area that has examined other contexts, such as instant messaging (e.g., Palomares & Lee, 2010). Fourth, in our study, the female interlocutor Christina was a stranger to the participants, who knew little information about her except for the biographies we provided. Research has shown that language use may be different when talking to strangers versus friends (e.g., Fussell

& Krauss, 1989). Therefore future studies may examine whether people use tentative language differently when interacting with those they are familiar with.

Our study points out important directions for future research in terms of its implications on the roles of group salience and interlocutor group typicality in intergroup as well as intragroup interactions. In the area of gender communication, researchers should reconsider the joint effect of interlocutor gender typicality and conversation topics on gender-based language use. More broadly, researchers should examine the joint effect of interlocutor group typicality and other contextual factors on people's intergroup communicative behaviors. For example, the typicality of the outgroup interlocutor may influence how people talk, what they talk about, and how they evaluate the outgroup member as well as the entire outgroup (cf. Brown & Hewstone, 2005). Group salience triggered by one contextual factor alone, such as conversation topics, may not be sufficient; a typical outgroup interlocutor may be the premise for people to assimilate to the prototypes of the ingroup, because such a person is representative of group prototypes (such as topical expertise). Furthermore, future research can examine the influence of the typicality of an ingroup member on people's communicative behavior. We have posed some interesting questions above; we believe that research that addresses these issues can not only further extend the self-categorization theory, but also contribute to the practical world by providing insight on how group memberships and typicality could be communicated through language, and how this process influences intergroup as well as intragroup relations in the real world.

Appendix: Biographies of the Fictitious Female Interlocutor***Typical Woman***

My name is Christina and I am a sophomore from [name of university]. My major is American Literature. I am 21 years old and 5' 5" tall, with long curly hair. Here's how I want to spend my perfect day. After having a long morning shower, I will spend an hour putting on makeup, put on a cute outfit and hang out with my friends. We will go into [location of university] and go shopping for clothes and shoes. Not that I have any more room for clothes in my closet—I need more space. After we shopped, we would go to the salon and get our nails done. Then we will have a coffee together. I love hanging out with my friends. They tell me that I am a great listener and I always give them the support they need. When I get home, I will watch a *Lifetime* movie--I am always moved to tears by the stories.

Atypical Woman

My name is Christina and I am a sophomore from [name of university]. My major is engineering. I am 21 years old and 5' 5" tall, with short straight hair. Here's how I want to spend my perfect day. After a quick shower, I will quickly put on my T-shirts and jeans and hang out with my friends. We will go into [location of university] and go to a basketball game. I want to get a new jersey. Not that I have any more room for jerseys in my closet—I need more space. After we watched the game we would go to the gym and play some ball. Then we would go have some drinks together. I love hanging out with my friends. They tell me that I am a great listener and I always give them reasonable advice when they need it. When I get home, I will watch an *ESPN* documentary--I am always amazed by the stories.

Acknowledgments

The authors would like to thank Nick Joyce for his valuable comments during the preparation of this manuscript. The authors would also like to thank Edward L. Fink for his helpful suggestions on the statistical analyses. The authors are grateful for the valuable feedback on earlier drafts of the manuscript by the editor Howard Giles and the two anonymous reviewers.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. Gender identification was also measured (Schmitt, Branscombe, Kobrynowicz, & Owen, 2002) to test a working hypothesis of its effect on tentative language use. However, the hypothesis was not supported, and gender identification was removed from subsequent analysis. It could be that the measure we used did not fully take into consideration the complexity of gender identification as a construct. Future research should examine the multiple dimensions of gender identity (see Egan & Perry, 2001) before testing the same hypothesis.
2. Two coders were asked to code on and off-topic tentative language features initially. However, given that there were few off-topic language features, the two categories were collapsed.

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Table 1. Descriptives of Proportion of Tentativeness in Each Condition.

	<u>Women</u>			<u>Men</u>			<u>Total</u>		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Typical interlocutor									
Feminine topic	.007	.010	36	.024	.013	16	.012	.013	52
Masculine topic	.013	.016	24	.006	.010	27	.009	.013	51
Neutral topic	.003	.005	29	.008	.011	24	.005	.008	53
Total	.007	.011	89	.011	.013	67	.009	.012	156
Atypical interlocutor									
Feminine topic	.012	.014	33	.013	.014	19	.012	.014	52
Masculine topic	.010	.011	33	.007	.011	20	.009	.011	53
Neutral topic	.008	.009	30	.009	.010	22	.008	.009	52
Total	.010	.012	96	.009	.011	61	.010	.012	157
Total	.009	.011	185	.010	.012	128	.009	.012	313

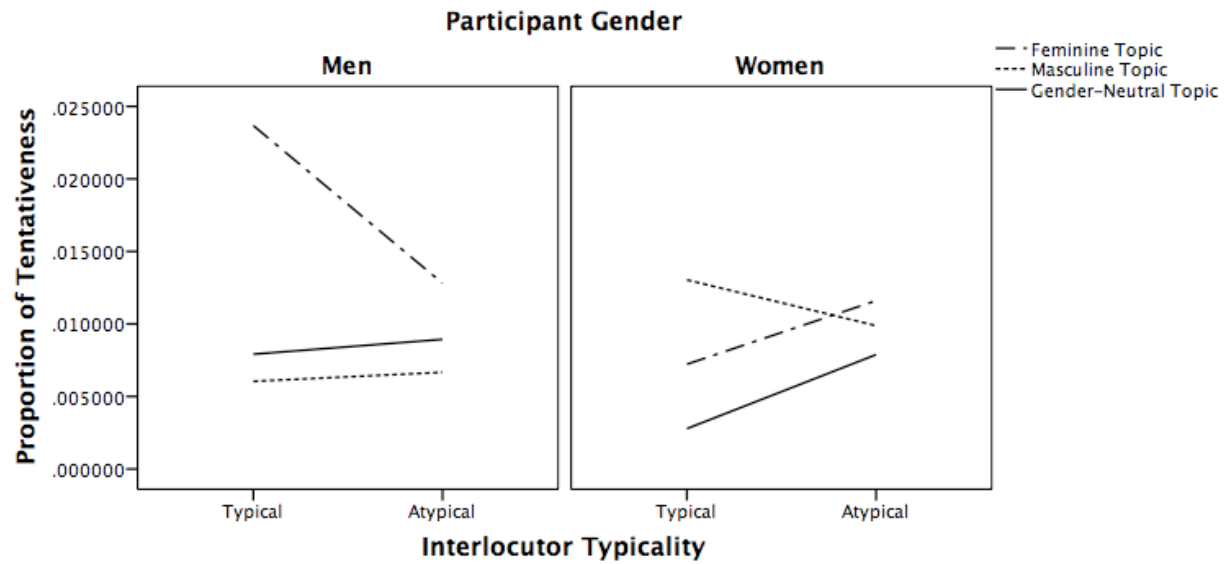


Figure 1. Comparing men and women's proportion of tentativeness when discussing a feminine, masculine, or gender-neutral conversation topic with a typical or atypical female interlocutor.

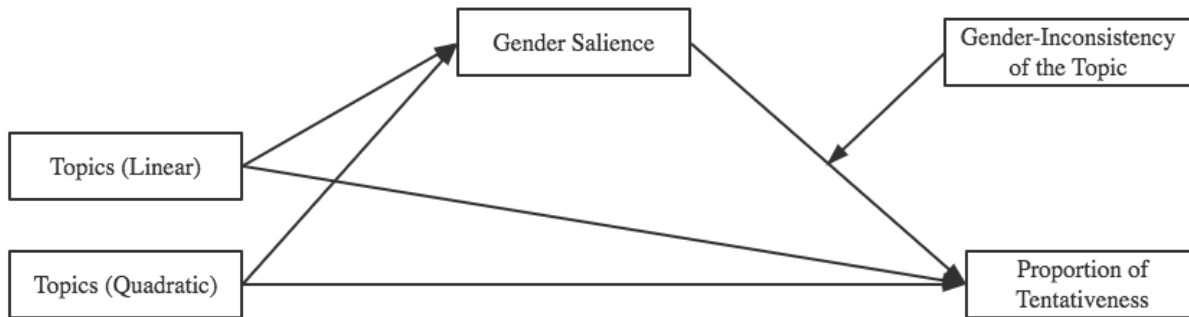


Figure 2. Mediation model of gender saliency when the interlocutor is a typical woman.

Topics (linear) is coded as: gender-neutral topic = -1, masculine topic = 0, and feminine topic =

1. Topics (quadratic) is coded as: gender-neutral topic = -1, masculine topic = 2, feminine topic = -1. Gender-inconsistency of the topic = 1 when the topic is inconsistent with participant's gender (i.e., women with a masculine topic or men with a feminine topic), = 0 when the topic is

consistent with participant's gender or is gender-neutral. Gender-inconsistency of topic was

entered as the moderator because when the topic is gender-consistent, gender saliency should not increase the use of tentative language.

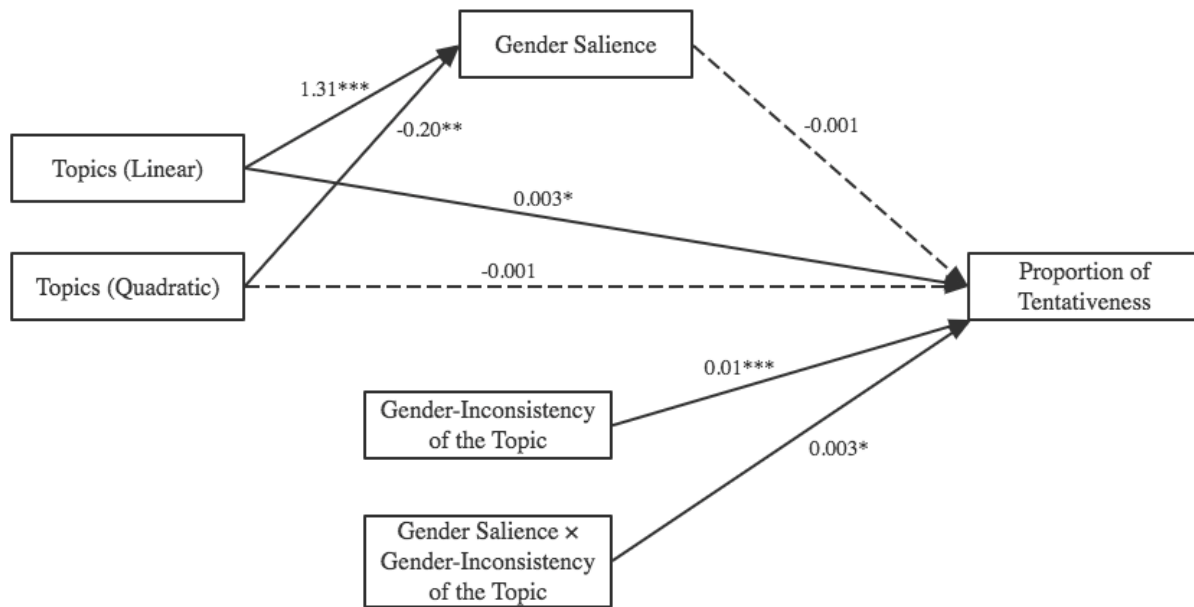


Figure 3. Statistical model in which gender saliency mediates the effects of conversation topics on proportion of tentativeness, moderated by gender-inconsistency of the topic.

The model was significant in predicting gender saliency, estimated $R^2 = .43$, $SE = .06$, $p < .001$, and the proportion of tentativeness, estimated $R^2 = .22$, $SE = .06$, $p < .001$. Unstandardized path coefficients and significance levels are shown in the diagram. Non-significant paths are represented as dotted lines.

* $p < .05$. ** $p < .01$. *** $p < .001$.

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